

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Original) A video display appliance capable of adjusting a sub-picture in a picture-in-picture (PIP) mode, comprising:

a key input unit, provided with menu selection keys, vertical and horizontal adjustment buttons for adjusting a level of a selected menu, for receiving an input of a specified key signal;

a main-picture signal processing unit for processing a main-picture signal inputted from an outside source in the form of signal that can be outputted to a display unit;

a sub-picture signal processing unit for processing a sub-picture signal inputted from an outside in the form of a signal that can be outputted to the display unit;

a micro-controller for controlling operations of respective constituent elements of the video display appliance;

a PIP processing unit for superimposing a sub-picture signal outputted from a memory unit on the main-picture signal outputted from the main-picture signal processing unit; and

an on-screen display (OSD) output unit for outputting an OSD menu in superimposition on the signal outputted from the PIP processing unit under the control of the micro-controller;

wherein the micro-controller outputs a sub-picture OSD adjustment menu for adjusting the sub-picture in the form of an OSD to the OSD output unit.

2. (Original) The video display appliance of claim 1, wherein the sub-picture OSD adjustment menu comprises adjustable functions subject to control, and a changing amount display section for indicating an adjustment amount of the selected adjustable function subject to control.

3. (Currently Amended) The video display appliance of claim 2 [[1]], wherein the functions subject to control that are displayed in the sub-picture OSD adjustment menu include at least one of a sub-picture horizontal size, a sub-picture vertical size, a sub-picture horizontal position, a sub-picture vertical position, a sub-picture brightness, a sub-picture contrast, and a thickness of a border line of the sub-picture.

4. (Original) The video display appliance of claim 1, wherein the sub-picture OSD adjustment menu is arranged in a sub-picture region.

5. (Original) The video display appliance of claim 1, wherein the sub-picture OSD adjustment menu is arranged in a position selected by a user.

6. (Original) The video display appliance of claim 2, wherein the changing amount display section displays the changing amount for a specified function subject to control as a variable histogram, a moving bar or arrows.

7. (Currently Amended) The video display appliance of claim 2, wherein in the case of displaying the changing amount display section using ~~the~~ a variable histogram, the variable histogram is varied in a horizontal direction or in a vertical direction within a reference region, starting from a predetermined position of the reference region.

8. (Currently Amended) The video display appliance of claim 2, wherein in the case of displaying the changing amount display section using ~~the~~ a moving bar, the moving bar is varied in a horizontal direction or in a vertical direction within a reference region, starting from a center line of the reference region.

9. (Original) The video display appliance of claim 2, wherein the changing amount display section of the sub-picture OSD adjustment menu indicates a level adjustment state in a vertical direction or in a horizontal direction in accordance with a kind of the function subject to control selected by a user.

10. (Original) The video display appliance of claim 2, wherein a level adjustment direction of the changing amount display section for the function subject to be controlled through the sub-picture OSD adjustment menu coincides with an actual changing direction of the sub-picture according to the adjustment.

11. (Original) A method of adjusting a sub-picture using an on-screen display (OSD) for a video display unit, comprising the steps of:

judging whether a sub-picture adjustment mode is selected by a user;

if it is judged that the sub-picture adjustment mode is selected by the user, displaying a sub-picture OSD adjustment menu in a specified region of a screen;

if one of functions subject to control is selected from the sub-picture OSD adjustment menu by the user, displaying a level adjustment display section in the sub-picture OSD adjustment menu;

detecting manipulation of a vertical adjustment button or a horizontal adjustment button of a key input unit, and varying a level of the level adjustment display section in response to the button manipulation; and

changing the corresponding function of the actual sub-picture as well as varying the level of the level adjustment section.

12. (Original) The method of claim 11, wherein a manipulation direction of the vertical and horizontal adjustment buttons of the key input unit, a level-changing direction of the level adjustment display section, and an actually changed direction of the sub-picture coincide with one another.

13. (Original) The method of claim 11, wherein the functions subject to control that are displayed on the sub-picture OSD adjustment menu include at least one of a sub-picture horizontal size, a sub-picture vertical size, a sub-picture horizontal position, a sub-picture vertical position, a sub-picture brightness, a sub-picture contrast, and a thickness of a border line of the sub-picture.

14. (Original) The method of claim 11, wherein the level adjustment display section displayed in the sub-picture OSD adjustment menu displays a changing amount of the selected function subject to control using a level meter, arrows or a numeral.

15. (Original) The method of claim 14, wherein a level meter of the level adjustment display section uses a variable histogram, or a moving bar in a horizontal or a vertical direction.

16. (New) The video display appliance of claim 1, wherein the vertical and horizontal adjustment buttons of the key input unit can be used to adjust a picture size and position of the sub-picture.

17. (New) The video display appliance of claim 1, further comprising a memory unit that stores a luminance signal and a chrominance signal for the sub-picture that is outputted from the sub-picture signal processing unit.

18. (New) A video display appliance, comprising:
a display screen;
a processor that generates a display signal which is output to the display screen, wherein the display signal causes the display screen to show a main picture and a sub-picture that is superimposed on the main picture;
a key input unit coupled to the processor, wherein a user can manipulate buttons on the key input unit to instruct the processor to take certain actions; and

an on-screen display (OSD) generator, coupled to the processor, which causes the processor to generate an OSD menu that is superimposed on the main picture, wherein the user can manipulate the buttons on the key input unit to select options on the OSD menu, and wherein the OSD menu can be used to change characteristics of the sub-picture.

19. (New) The video display appliance of claim 18, wherein the OSD menu can be used to adjust a size or location of the sub-picture on the main picture.

20. (New) The video display appliance of claim 18, wherein the OSD menu can be used to adjust a brightness or contrast of the sub-picture.

21. (New) The video display appliance of claim 18, wherein the OSD menu includes a graphical display icon that indicates a current setting of a characteristic of the sub-picture.

22. (New) A method of adjusting a sub-picture of a display, comprising:
causing an on-screen display (OSD) menu to appear on a main picture being shown on the display;
receiving key input from a user for the OSD menu, wherein the key input indicates that the user wishes to alter a characteristic of a sub-picture which can be superimposed on the main picture; and
altering the selected characteristic of the sub-picture based on the received key input.

23. (New) The method of claim 22, wherein the receiving step comprises receiving key input that indicates that the user wishes to alter a size or location of the sub-picture on the main picture.

24. (New) The method of claim 22, wherein the receiving step comprises receiving key input that indicates that the user wishes to alter a brightness or contrast of the sub-picture.

25. (New) The method of claim 22, wherein the OSD menu includes a graphical display that indicates a current setting for a characteristic of the sub-picture.